

Northeast Metro Tech

Building Committee



DRA

October 8, 2020

Agenda

- SBC Vote to Approve Prior Minutes
- OPM Update
- Designer Update
 - Preferred Schematic phase
 - Conceptual Options
 - Evaluation Matrix
- Discussion

Key Project Milestones

1. ELIGIBILITY PERIOD

Congratulations--your school project has been invited to continue in the MSBA pipeline!



2. FORMING THE PROJECT TEAM

We jump right in to help you select the Architect & establish the ProPay reimbursement process.



3. FEASIBILITY STUDY

We work together to deliver an MSBA-approved Preliminary Design Program & Preferred Schematic Report.



YOU ARE
HERE

4. SCHEMATIC DESIGN

We assist in developing a final design program & in negotiating a Project Scope and Budget Agreement with the MSBA.



5. FUNDING THE PROJECT

We stand by you in securing community/funding approval & in negotiating the MSBA Project Funding Agreement.



6. DETAILED DESIGN

Guiding you through design, we also help to generate construction docs., procure bids & award a construction contract.



7. CONSTRUCTION

Our team oversees the construction process while keeping a close eye on the budget, schedule & more.



8. COMPLETING THE PROJECT

In project close-out, we work with you and the MSBA to finalize permits & to maximize grant reimbursements.



Key Project Milestones

MSBA Module #2 Forming the Project Team	MSBA Module #3 Feasibility Study	MSBA Module #4 Schematic Design	MSBA Module #5 Funding the Project
<u>AUGUST 2019</u> OPM Selection	<u>JANUARY 2020</u> Begin Feasibility Study	<u>JANUARY 2021</u> Begin Schematic Design	<u>LATE DECEMBER 2021</u> Local funding approval deadline
<u>JANUARY 2020</u> Designer Selection	<u>AUGUST 2020</u> SBC approves PDP Submit PDP to MSBA	<u>JUNE or JULY 2021</u> SBC approves SD/DESE design package	
	<u>SEPTEMBER 2020</u> SC approves Education Plan	<u>JULY 2021</u> Submit SD/DESE to MSBA MSBA FAS Meeting	
	<u>DECEMBER 2020</u> SBC approves PSR Submit PSR to MSBA	<u>AUGUST 2021</u> MSBA BOD approves project scope & budget	
	<u>JANUARY 2021</u> MSBA FAS Meeting		
	<u>FEBRUARY 2021</u> MSBA BOD approves PSR		

Acronym glossary

BOD – Board of Directors (MSBA)
DESE – Massachusetts Department of
Elementary & Secondary Education
Ed. Plan – Educational Plan
FAS – Facilities Assessment Subcommittee

ISS – Initial Space Summary
MSBA – Mass. School Building Authority
OPM – Owner's Project Manager
PDP – Preliminary Design Program
PSR – Preferred Schematic Report

SBC – School Building Committee
SC – School Committee
SD – Schematic Design

Updated 9.9.2020

Preferred Schematic Report

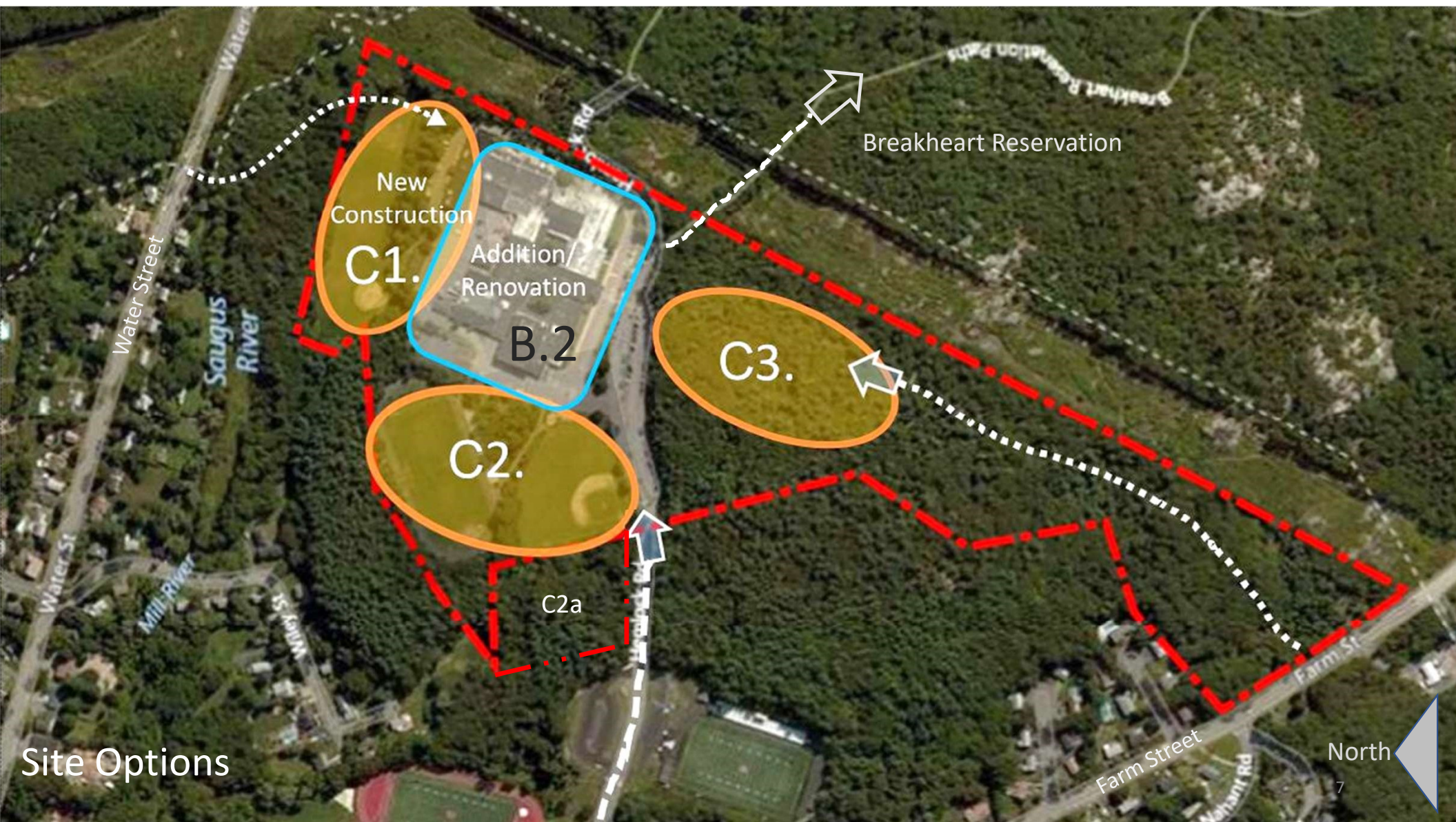
Goals:

- Summarize Process & Conclusions of the Preliminary Evaluation of Alternatives
- Substantiate & Document the Recommendation of a Preferred Solution

Preferred Schematic Report

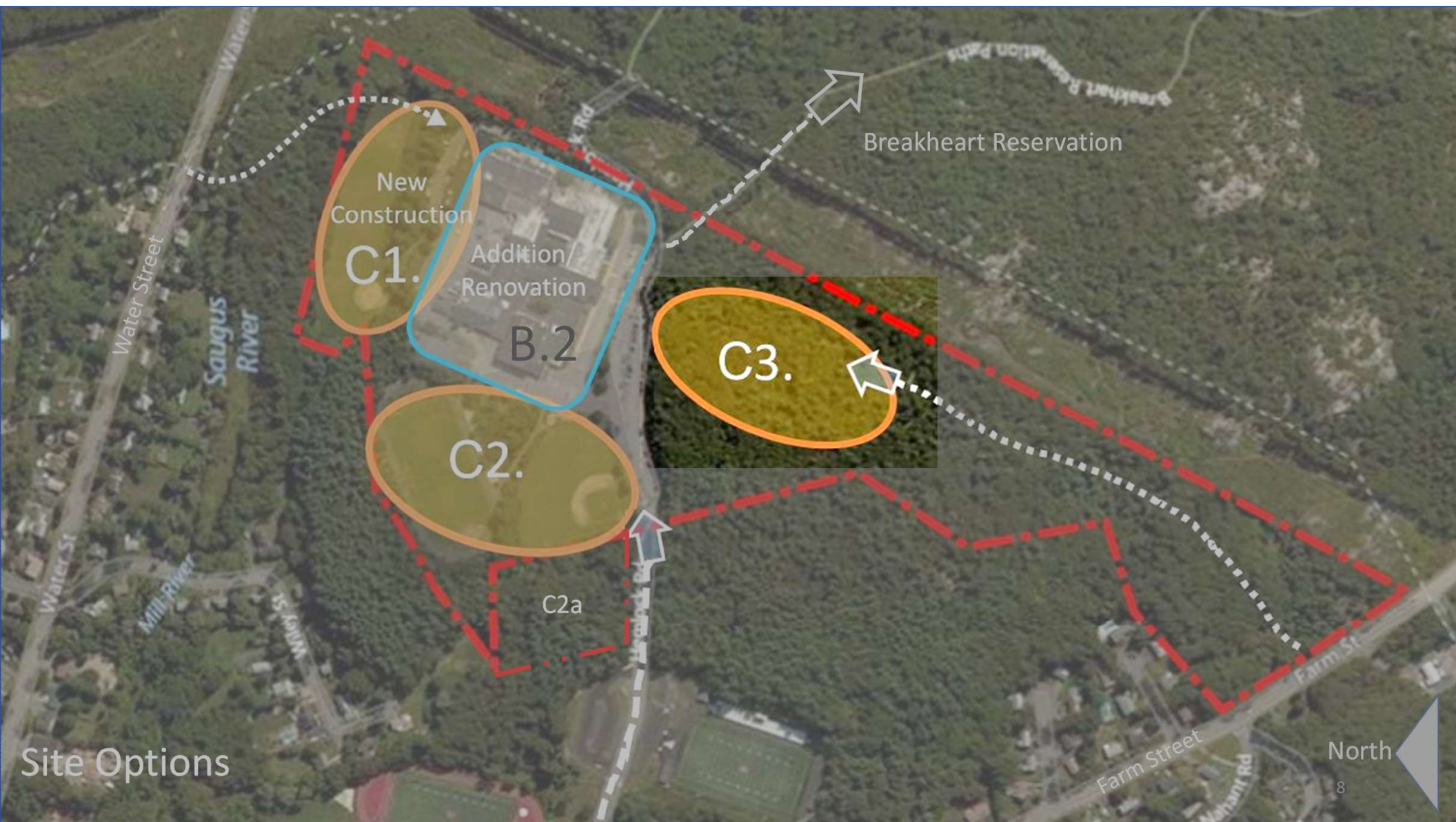
Content:

- Introduction- *Summary & Response to PDP Comments*
- Evaluation of Existing Conditions - *update*
- **Final Evaluation of Alternatives**
- **Preferred Solution**
- Local Actions & Approvals



Site Options

North



Site Options

North



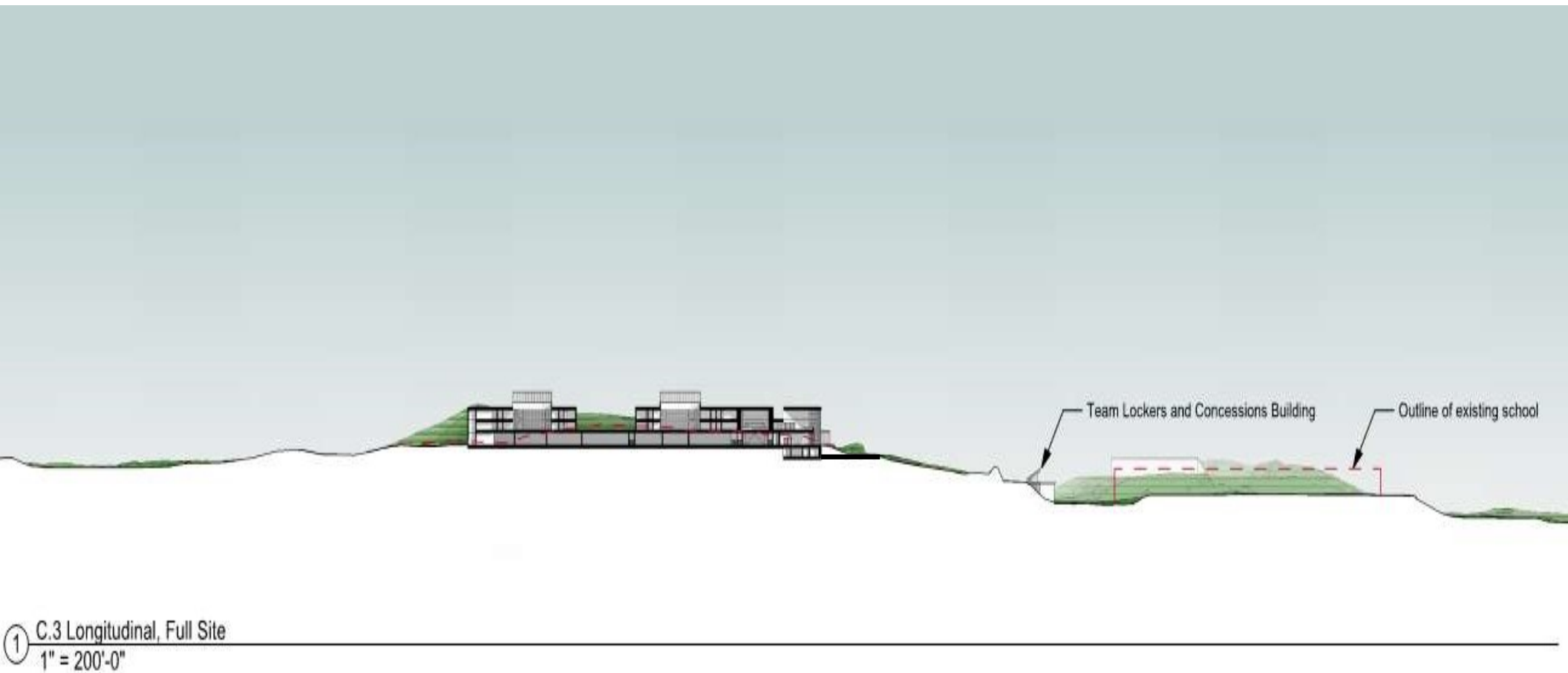
Option C.3



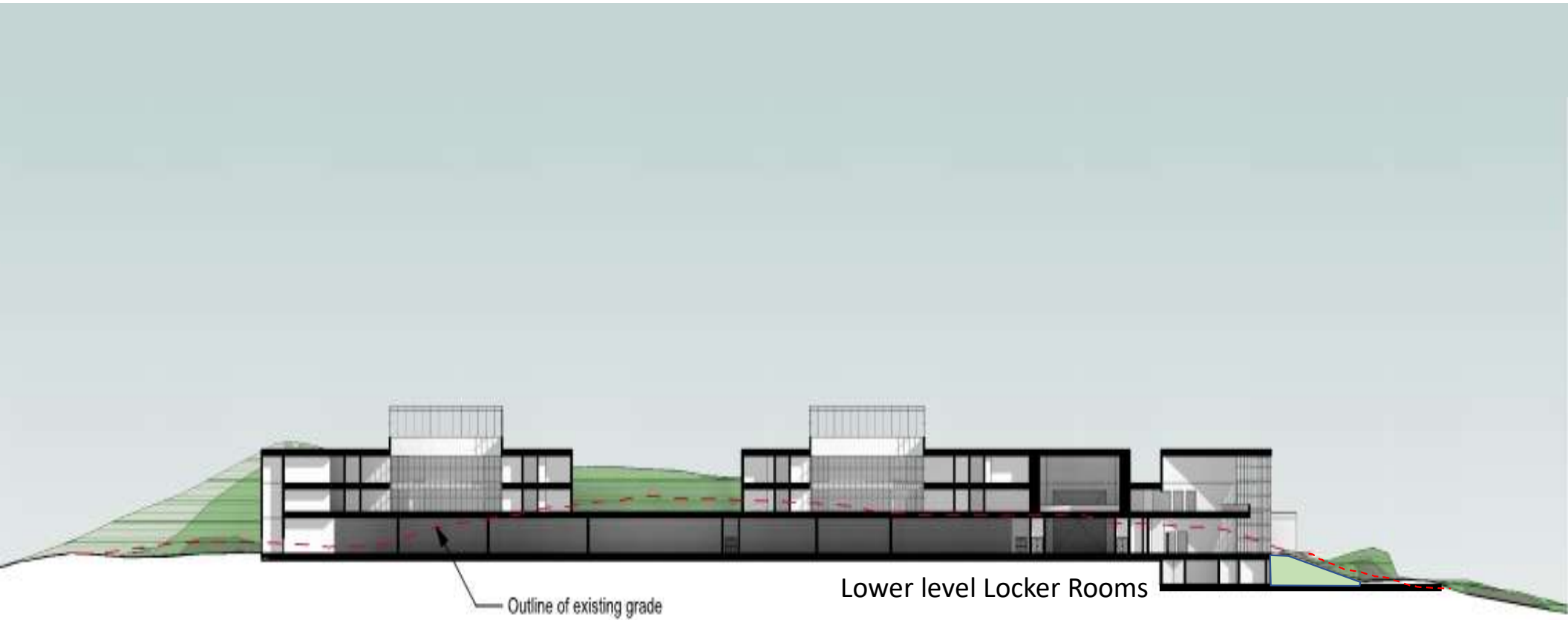
A topographic map of a hillside with green contour lines. A large blue rectangular area, representing a proposed development, is situated on a slope. A dark brown road or path winds around the development. A teal banner with the text 'Hemlock Road' is positioned above the development. To the right, a road curves around the hillside, with a small blue building and a red circular feature visible. The background shows more contour lines and some small white structures in the upper left.

Hemlock Road

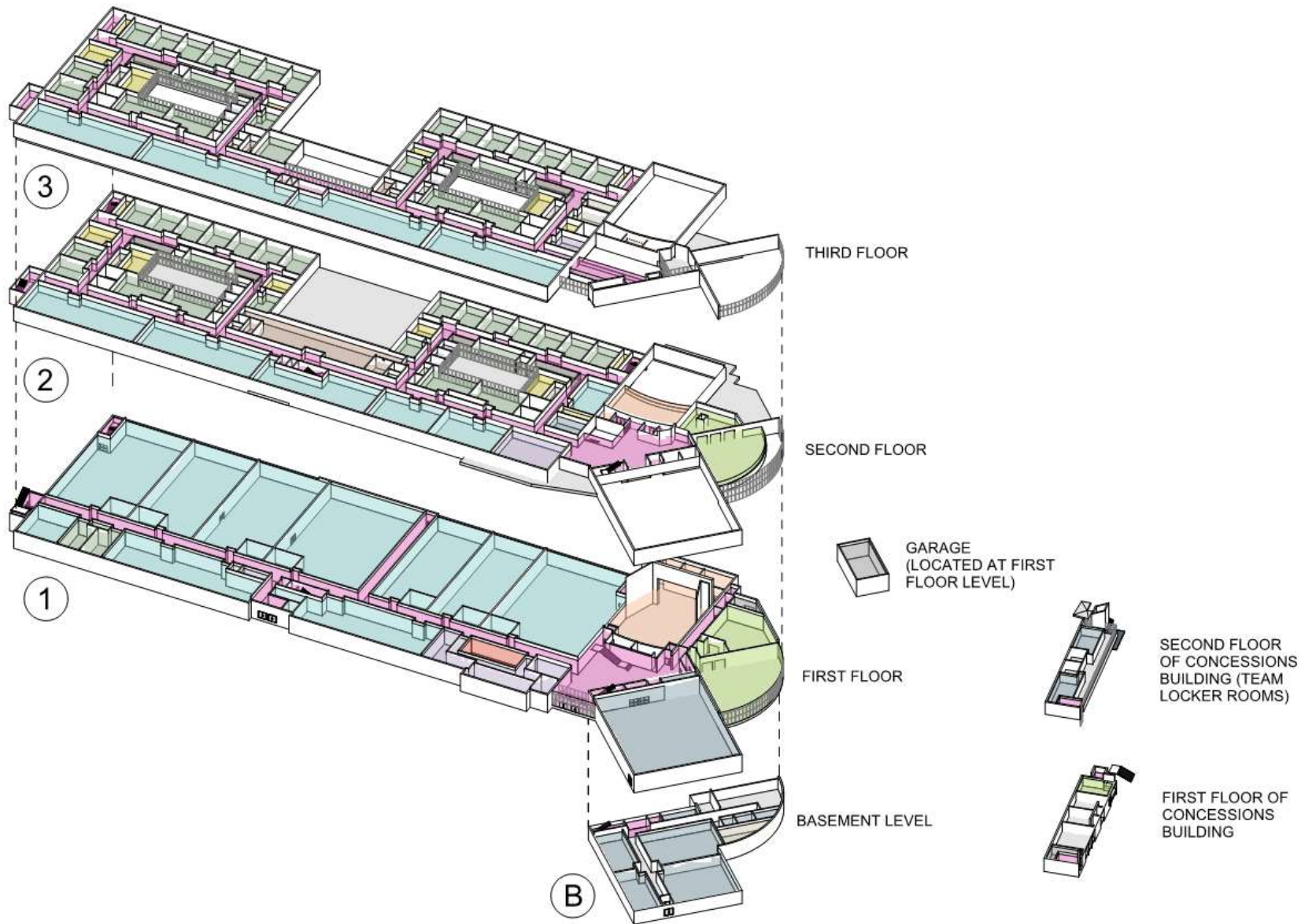
Option C.3

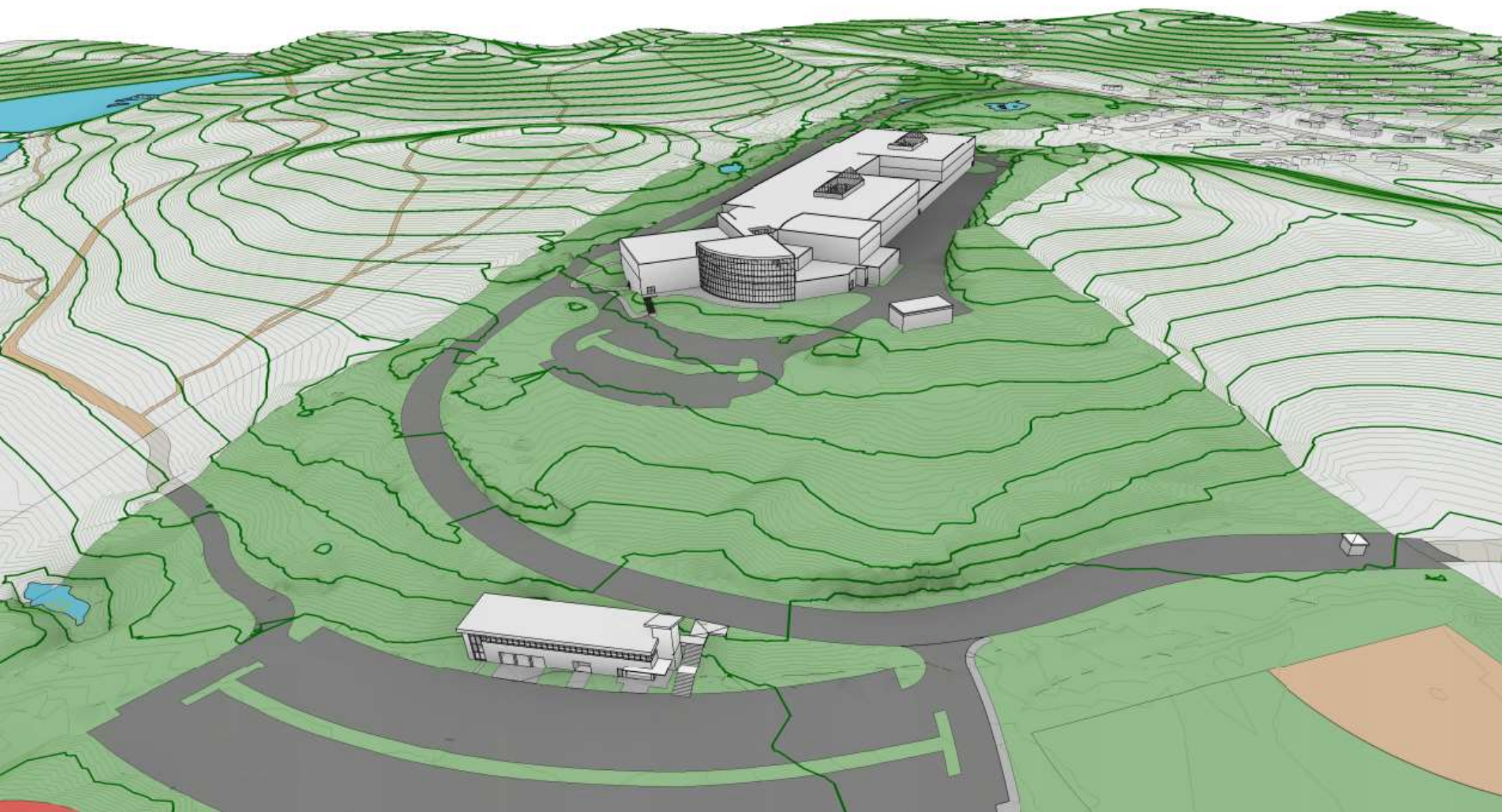


Option C.3



Option C.3





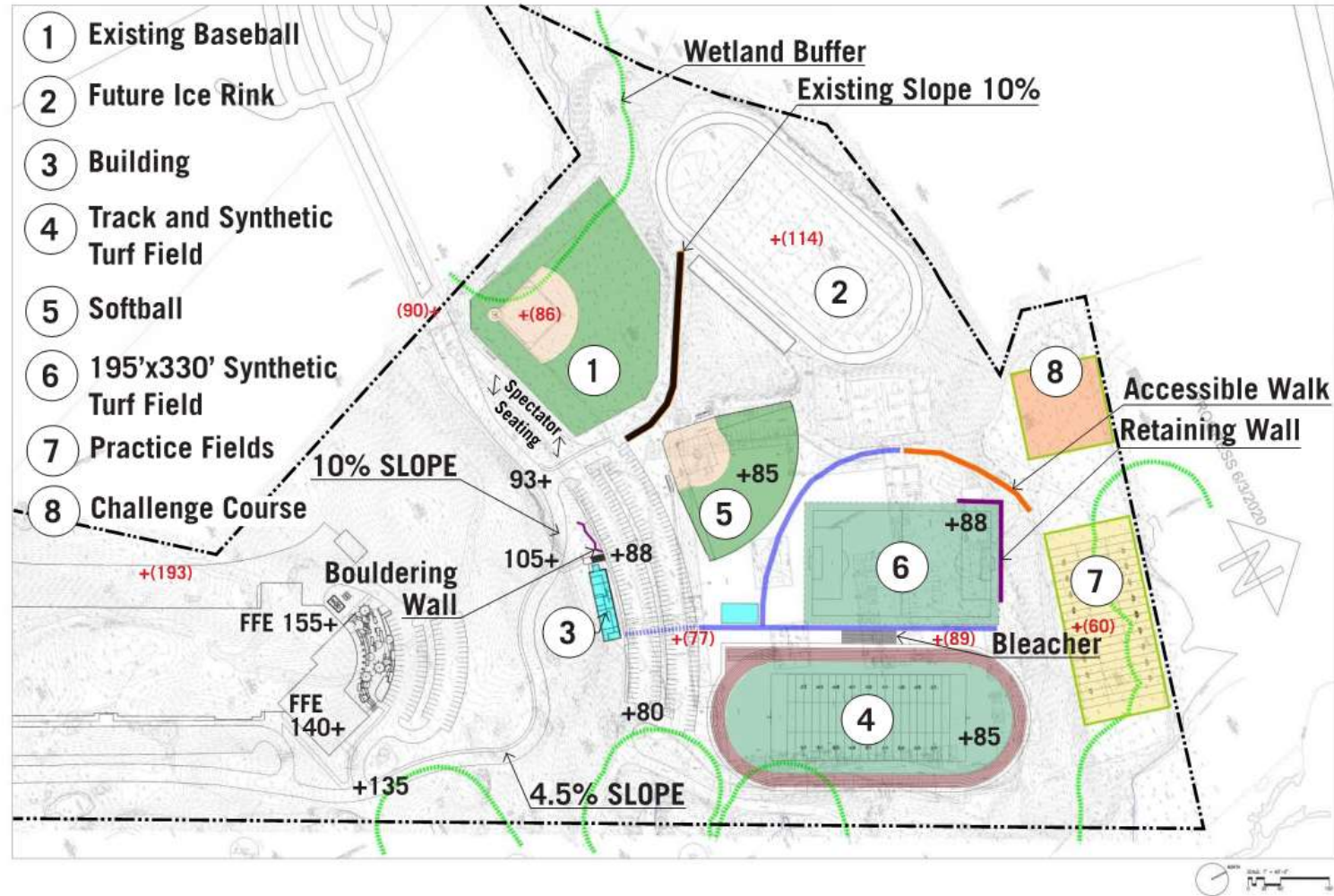
STUDY 2

Pros

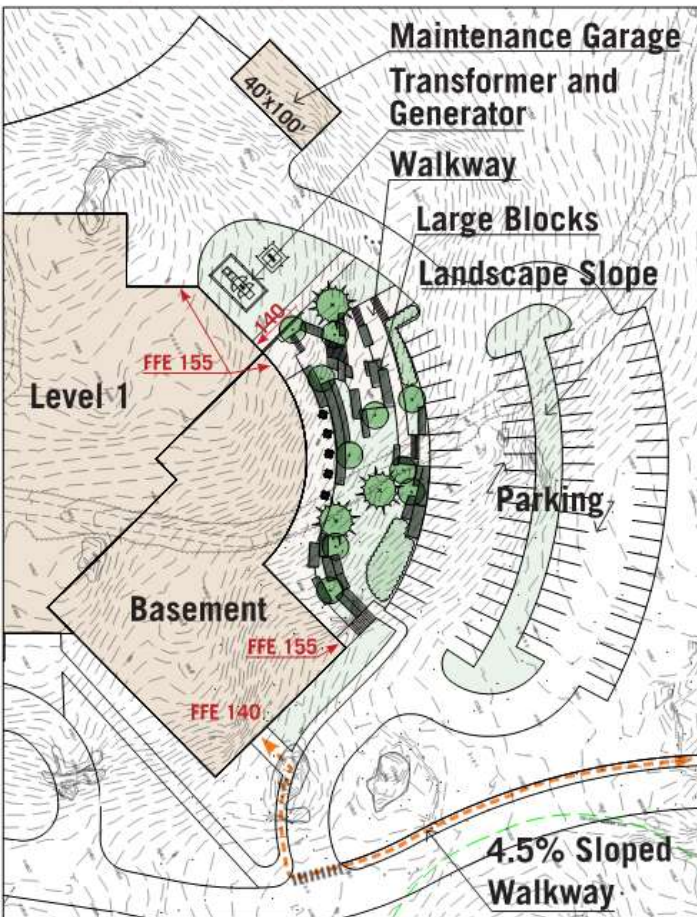
- North-south T&F orientation
- East facing bleacher
- All regulation fields about same elevation
- Side-by-side turf fields can be lit by 6 sports light poles
- Space for separate concession/restroom hub
- Keep existing baseball field
- Parking: School = 81, Fields = 208

Cons

- Considerable fill at multi-sport field
- Breakheart parking integrated in main lot



PROPOSED PLAZA



CELEBRATE THE PICTURESQUE BREAKHEART RESERVATION



Preliminary Evaluation of Options

Criteria

Education: Plan Accommodation, Compliance with Educational Vision

Costs: Project Cost, Reimbursement, Temporary Costs, Long-Term Value

Disruption: Impact, Phasing, Construction Duration

Flexibility: Design, Enrollment Accommodation, Expansion Potential

Maintenance: Operating Costs, Longevity

Site: Safety & Security, Access, Amenities

Preliminary Evaluation of Options

Preliminary Evaluation Matrix - Northeast Metro Tech - Concept Options - **WORKING DRAFT**



Updated:
6/22/2020

Evaluation Criteria	Concept Options						
	MSBA Required	Renovation	Add/ Renovation	Options			
	Base Repair	A	B.1	B.2	C.1	C.2	C.3
	Code Renovation						
Construction Duration:	multiple years	multiple years	3+ years	3+ years	2+ years	2+ years	2+ years
Ed Plan Accomodation Compliance w/ Vision	doesn't address any educational deficiencies	not large enough to address space needs	difficult to accommodate Ed Plan; no Small Learning Communities; poor adjacencies of shops to academic spaces	difficult to accommodate Ed Plan; no Small Learning Communities; poor adjacencies of shops to academic spaces	good Ed Plan conformance; good adjacencies of CTE and academic spaces; no expansion potential; cannot accommodate highest enrollment	fair Ed Plan conformance with Small Learning Communities; uneven distribution of CTE shops; some flexibility and expansion potential	best Ed Plan conformance with Small Learning Communities, adjacencies & project spaces; some flexibility; limited expansion potential
Project Cost			high temporary costs; structured parking required; slightly higher reimbursement for renovation	high temporary costs; structured parking required; slightly higher reimbursement for renovation	temporary sewer relocation required; tall retaining walls required;	high sitework costs	highest blasting & site development (roadwork, utilities) costs; highest long-term value
Reimbursable Cost							
Temporary Costs							
Long-term Value							
Disruption			phased construction adjacent to occupancy; long construction schedule; requires temporary parking	phased construction adjacent to occupancy; long construction schedule; requires temporary parking	some impact to adjacent occupancy; service and utility interruptions	minimal impact to adjacent occupancy; loss of athletic fields during construction; shortest building construction schedule	virtually no impact to existing occupancy; significant sitework requires early construction packages
Impact on Students							
Construction Duration							
Phasing							
Flexibility			limited flexibility; limited expansion potential; doesn't accommodate higher enrollments	limited flexibility; limited expansion potential; can accommodate higher enrollments	limited flexibility; limited expansion potential; can't accommodate highest enrollments	some flexibility; limited expansion potential; can accommodate higher enrollments	good flexibility; limited expansion potential; can accommodate higher enrollments
Enrollment Accommodation							
Expansion Potential							
Operating Costs			most renovation areas will have limited envelope improvements; not all existing utilities will be replaced with new; parking garage has limited longevity	most renovation areas will have limited envelope improvements; not all existing utilities will be replaced with new; parking garage has limited longevity	all new construction & MEP systems; good solar orientation, good thermal envelope	all new construction & MEP systems; good thermal envelope	all new construction & MEP systems; best thermal envelope/ compact footprint
Maintenance							
Site Access			existing car & bus separation and service access; limited parking by event entrance; limited separation of Breakheart traffic	existing car & bus separation; limited parking by event entrance; reduced service access; limited separation of Breakheart traffic	good car & bus separation; parking divides fields; convenient visitor parking, good service access; limited separation from Breakheart traffic	good car & bus separation; convenient visitor parking, good service access; limited separation from Breakheart traffic	new primary access road; good car & bus separation; good separation from Breakheart traffic
Safety & Security							
Circulation							
Final Site layout			all existing fields to be reconstructed within limited area; less than desirable accessibility to fields	all existing fields to be reconstructed within limited area; less than desirable accessibility to fields	New multi-purpose/soccer field, new softball field; renovated track, football, baseball fields. Some accessibility issues remain to upper fields	New track, football, & baseball fields; renovated softball & practice fields. Some accessibility issues remain to lower fields	All new and expanded athletic fields; accessibility from school is less than ideal
Site amenities							
Totals							

Legend

5	positive / most advantageous
4	
3	neutral
2	
1	negative / least advantageous

Matrix of Options

Northeast Metro Tech



Matrix of Options *DRAFT*

Enrollment		MSBA Required	Families of Conceptual Options							
			A	B		C			D	
			Renovation	Add/Reno		New Construction On-Site			New Construction Off-Site	
			A.1	B.1	B.2	C.1	C.2.1	C.3.1	C.2.A	?D.1?
a.	1,250 Students	doesn't address any educational deficiencies	X	B.1a	B.2a	C.1a	C.2.1a	C.3.1a	C.2.Aa	D.1a
b.	1,400 Students	X	X	B.1b	B.2b	C.1b	C.2.1b	C.3.1b	C.2.Ab	D.1b
c.	1,600 Students	X	X	B.1c	B.2c	C.1c	C.2.1c	C.3.1c	C.2.Ac	D.1c
d.	1,660 Students	X	X	B.1d	B.2d	C.1d	C.2.1d	C.3.1d	C.2.Ad	D.1d
e.	1,722 Students	X	X	B.1e	B.2e	C.1e	C.2.1e	C.3.1e	C.2.Ae	D.1e

Summary of Costs

Cost Summary of Options														DRAFT		
Updated: DRAFT R. 12. 2020 Families of Options:			Families of Conceptual Options													
				A	B				C							
			MSBA Required	Renovation	Add/Reno				New Construction On-Site							
			Base Repair	A.1	B.1		B.2		C.1		C.2		C.3			
Enrollment					Range of Costs		Range of Costs		Range of Costs		Range of Costs		Range of Costs			
					low	high	low	high	low	high	low	high	low	high		
a.	1,250 Students	Construction Cost PROJECT COST	\$94.9 M \$115 M	X	\$150 - \$183 M \$195 - \$247 M		\$151 - \$184 M \$196 - \$249 M		\$168 - \$197 M \$210 - \$256 M		\$171 - \$201 M \$214 - \$261 M		\$175 - \$202 M \$218 - \$263 M			
b.	1,400 Students	Construction Cost PROJECT COST		X	\$166 - \$203 M \$216 - \$275 M		\$167 - \$204 M \$217 - \$276 M		\$183 - \$215 M \$229 - \$279 M		\$186 - \$219 M \$233 - \$284 M		\$190 - \$220 M \$237 - \$286 M			
c.	1,600 Students	Construction Cost PROJECT COST		X			\$191 - \$233 M \$248 - \$315 M		\$204 - \$239 M \$255 - \$311 M		\$208 - \$244 M \$260 - \$317 M		\$211 - \$245 M \$264 - \$319 M			
d.	1,660 Students	Construction Cost PROJECT COST		X			\$197 - \$240 M \$256 - \$324 M				\$213 - \$250 M \$267 - \$326 M		\$217 - \$251 M \$271 - \$327 M			
e.	1,722 Students	Construction Cost PROJECT COST		X			\$203 - \$248 M \$264 - \$335 M				\$219 - \$257 M \$274 - \$335 M		\$223 - \$258 M \$278 - \$336 M			

Preferred Schematic

Process

Upcoming Meetings:

- Weekly Project Team
- Bi-Weekly Working Group
- Monthly Building Committee
- Faculty, Department Heads & Instructors
- Advisory Committees
- Community Meetings
- Conservation Commission
- Local Officials- Building, Fire, Traffic
- Security – Administration, First Responders

Northeast Metro Tech

Building Committee

Thank You!

DRA

October 8, 2020²²